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| 09/853,014 | 05/10/2001 | Peter Schafer | A34196 PCT USA-A | 5113 |

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| EXAMINER |
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BURCH, MELODY M

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| ART UNIT | PAPER NUMBER |
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3683

DATE MAILED: 12/05/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/853,014

Applicant(s)

SCHAFFER ET AL.

Examiner

Melody M. Burch

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 September 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 May 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. The proposed drawing correction and/or the proposed substitute sheets of drawings, filed on May 14, 2002, have been disapproved because they introduce new matter into the drawings. 37 CFR 1.121(a)(6) states that no amendment may introduce new matter into the disclosure of an application. The original disclosure does not support the showing of the electronic stability system including the processor in addition to the anticipation device, the controller, and the actuator.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-5 and 12-17 rejected under 35 U.S.C. 102(b) as being anticipated by EP-0798187.

Re: claims 1-4 and 12-16. EP-0798187 discloses a method for controlling a brake system of a vehicle wherein braking effect on the vehicle wheels is a function of brake pedal force exerted by the operator, the braking effect being enhanced by an adjustable braking force booster comprising: detecting dynamic conditions of the vehicle by way of the actuation of brake pedal 1 by via pedal stroke sensor 25, analyzing the dynamic conditions to detect a condition of vehicle instability as disclosed in col. 8 lines

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43-46 in which the pedal operated quantity is compared to a threshold, and increasing the force boosting effect of the braking force booster when the analysis indicates condition of the condition of vehicle instability as disclosed in col. 8 lines 50-54 and shown by step S150 in figure 4.

Re: claims 5 and 17. EP-0798187 discloses the step of monitoring via brake switch 23 to detect a condition wherein the operator may apply full braking and increasing the force boosting effect of the braking force booster when the monitoring indicates a condition wherein the operator may apply full braking.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 6, 7, 18, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP-0798187 in view of Sato. EP-0798187 teaches monitoring the operator's use of a pedal, as set forth above, but does not disclose the limitation of the pedal being an accelerator. Sato teaches the use of monitoring the operator's use of or more specifically the abrupt release of an accelerator pedal as disclosed in lines 1-2 of the abstract. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the method of controlling the brake system of EP-0798187 to have included a step of monitoring the operator's abrupt release of the

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accelerator pedal, as taught by Sato, in order to provide an alternate means of determining the operator's intentions of applying brakes under unstable vehicle conditions.

6. Claims 8, 9, 20-22 rejected under 35 U.S.C. 103(a) as being unpatentable over EP-0798187 in view of Kircher et al.

Re: claims 8, 20, and 21. EP-0798187 discloses a method for controlling a brake system of a vehicle wherein braking effect on the vehicle wheels is a function of brake pedal force exerted by the operator, the braking effect being enhanced by an adjustable braking force booster comprising: detecting dynamic conditions of the vehicle by way of the actuation of brake pedal 1 via pedal stroke sensor 25, analyzing the dynamic conditions to detect a condition of vehicle instability as disclosed in col. 8 lines 43-46 in which the pedal operated quantity is compared to a threshold, and increasing the force boosting effect of the braking force booster when the analysis indicates condition of the condition of vehicle instability as disclosed in col. 8 lines 50-54 and shown by step S150 in figure 4 and a processor 20, but does not specifically disclose the limitation of at least one clamping device responsive to an actuator for applying the braking force to the vehicle.

Kircher et al. teach in figure 1 the use of at least one clamping device or disc brake 1-4 responsive to an actuator M which as taught in col. 4 lines 20-23 presses the brake shoes of the disc brake from either side against a brake disc rotating on a wheel. It is maintained that such pressing action inherently overcomes free play of the clamping device or disc brake. Also, although not disclosed, it is obvious that in order

for the method of controlling the braking system of EP-0798187 to function, there must be an associated well-known brake structure such as a disc brake or drum brake associated with the system. Despite the silence of the inventors of EP-0798187 with respect to the specific brake structure associated with the system, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the brake structure associated with the brake system of EP-0798187, to have included a clamping device or disc brake responsive to an actuator, as taught by Kircher et al., in order to provide a means of realizing the braking effect of the brake system.

Re: claim 9 and 22. EP-0798187, as modified, teaches the step of monitoring via brake switch 23 to detect a condition wherein the operator may apply full braking and increasing the force boosting effect of the braking force booster when the monitoring indicates a condition wherein the operator may apply full braking.

7. Claims 10, 11, 23, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP-0798187 in view of Kircher et al., and further in view of Sato. EP-0798187, as modified, teaches monitoring the operator's use of a pedal, as set forth above, but does not disclose the limitation of the pedal being an accelerator. Sato teaches the use of monitoring the operator's use of or more specifically the abrupt release of an accelerator pedal as disclosed in lines 1-2 of the abstract. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the method of controlling the brake system of EP-0798187 to have included a step of monitoring the operator's abrupt release of the accelerator pedal, as

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taught by Sato, in order to provide an alternate means of determining the operator's intentions of applying brakes under unstable vehicle conditions.

Response to Arguments

8. Applicant's arguments filed 9/16/02 regarding the drawings have been fully considered but they are not persuasive.

Re: Drawing Objection. Examiner notes that it was recommended that processor 1 be enclosed along with any other appropriate elements within a perforated box labeled electronic stability system. The objection to the drawing has been maintained because the anticipation device, the controller, and the actuator are not appropriate elements to be enclosed within the perforated box labeled electronic stability system since the originally filed disclosure does not provide support for such a modification to figure 3. Based on the original disclosure, the processor is the only appropriate element to be enclosed within the perforated box labeled electronic stability system.

Re: 102/103 Rejections. Although the arguments filed 9/16/02 are moot due to the new grounds of rejection, upon further review of Applicant's remarks filed on 12/7/01, it has been determined that the 12/7/01 arguments are not persuasive in response to the rejections using the EP-0798187 reference. On pg. 5 of Applicant's remarks filed on 12/7/01 Applicant argues that the dynamic conditions of the vehicle are not represented by the action of the operator. Applicant goes further to state that dynamic conditions are defined by examples which may include steering wheel angle,

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wheel speed, yaw rate and transverse acceleration and that these dynamic conditions may evidence vehicle instability. Examiner notes that steering wheel angle is a parameter that is linked to the turning of a vehicle by an operator with steering wheel angle and turning representing a dynamic condition of the vehicle. Similarly, brake pedal travel is a parameter that is linked to the braking of a vehicle by an operator with pedal travel and braking representing a dynamic condition of the vehicle. Accordingly, Examiner maintains that brake pedal travel is an example of a dynamic condition to the same extent as the steering wheel angle example provided by Applicant. The claim language does not preclude any particular types of dynamic conditions that may evidence vehicle instability.

Additionally, Applicant argues that the Kircher reference does not provide an increase in braking force when vehicle instability is detected. Examiner notes that this argument is irrelevant since the Kircher reference is not utilized to provide the teaching of the braking force increasing when vehicle instability is detected. As discussed in paragraph 11 of the Office Action of paper no. 5, the Kircher reference is used to teach the limitation of at least one clamping device being responsive to an actuator for applying the braking force to the vehicle.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US Patent 5607209 to Narita et al. teach in col. 1 line 55-col. 2 line 7 the use of a method for controlling a brake system of a vehicle wherein dynamic

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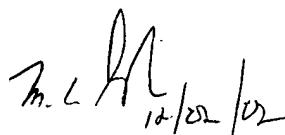
conditions or type of braking of the vehicle is detected, the dynamic conditions or types of braking are analyzed to detect whether the braking is normal or special (emergency/rapid), and wherein a force boosting effect of a braking force booster is increased when the analysis reveals that there is vehicle instability (emergency/rapid) braking. Narita et al. also teach in col. 15 lines 59-65 that vehicle instability (emergency/rapid) braking may be detected not only via a pedal pressure or force sensor, but also through the use of a wheel speed sensor or steering angle sensor.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melody M. Burch whose telephone number is 703-306-4618. The examiner can normally be reached on Monday-Friday (7:30 AM-4:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Lavinder can be reached on 703-308-3421. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-7687 for regular communications and 703-305-7687 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

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November 27, 2002


12/22/02
MATTHEW C. GRAHAM
PRIMARY EXAMINER
GROUP 310